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MEMBERSHIP FEE: Individual & Club Memberships - $10.00 Annually. Junior Membership (18 years of age and under) - $7.00 Annually. Write to NUMISMATICS INTERNATIONAL, P. O. BOX 30013, DALLAS, TX 75230, USA for information concerning membership in NI.

INSIDE N.I.

MEMBERSHIP CHAIRMAN'S REPORT

1519 William P. Bergin, 30 Creek Road, Churchville, Pa. 18966
(U. S. Gold)

1520-MT Roland Chau, FRNS, Kowloon Rattanware Co., 24 Ashley Rd., 1st Floor, KLN, Hong Kong -- (World Coins_

1521-MT Alexander Radichevich, P. O. Box 512, Clifton, N.J. 07012
(Canada, Mexico, Germany, Hungary, Austria, Swiss, Philippines, Yugoslavia, World Crowns)

1522-MT R. B. F. Dauwe, Postbus 61, 4530 AB Terneuzen, Netherlands
(Egyptian Coins from antiquity to modern times)

1523 Urban M. Foerster III, Krause Publications, Iola, Wisc. 54945
(World Coin News)

1524-MT Eric Ollivier, 5 Rue de L'arc en Ciel, Strasbourg 67000, France
(Islamic Glass Weights & Stamps, Central Asia)

*****

REINSTATEMENT: The following member has complied with the By-Laws and is hereby reinstated to full membership:

1334 Allen Eckert, P. O. Box 568, Mason, Texas 76856
(Dealer in World Coins)

*****

LIBRARIAN'S REPORT

I. Acknowledgement is made below to those who have donated material to the NI Library. With the exception of titles preceded by the letters "ne" (representing different editions of books already on the shelves) all other entries shown are new to our collection.

W. A. Haskell

GmbH&Co. *Wert Papier ABC.* Pub. 1978, 36pp, not illus. A dictionary of terms relating to stocks and bonds.

GRUPP, CLAUS D. *Celd zu Jeder Zeit. Geschechten vom Geld am Rande der Geschichte.* Pub. 1975, 52pp, illus. The story of money.

BOWERS, Q. DAVID. *High Profits from Rare Coin Investment.* Pub. 1977, 208pp, illus.

Drossos J. Kravartojannos

KRAVARTOJANNOS, DROSSOS J. ΤΑ ΝΟΜΙΣΜΑΤΑ ΤΗΣ ΑΜΦΙΣΣΗΣ (The Coins of Amphissa). Pub. 1978, 6pp, illus.

Donald H. Mead

PLENDERLEITH, H. J. *The Conservation of Antiquities and Works of Art, Part II, Metals.* Pub. 1956, 20pp, w/tables. On Cleaning.

Fred G. van den Haak

FRANS, MORIN. *Katalogus der Belgische Munten van 1832 tot heden.* Pub. 1975, 96pp, illus.

ne DIETZEL, HEINZ. *Die Munzen des Deutschen Reiches ab 1871.* Pub. 1978, 11th ed., 95pp, illus.

ne MEVIUS, JOHAN. *Speciale Catalogus van de Nederlandse Munten van 1795 tot heden.* Pub. 1978, new ed., 100pp, illus.

Randolph Zander

CLAIN-STEFANELLI, ELVIRA E. *Highlights from the Money Collection of the Chase Manhattan Bank.* Pub. 1979, 36pp, illus.

PLATBARZDIS, A. *Latvijas Naudas.* Pub. 1960, 80pp, w/plates. On coins, paper money and medals of Latvia.

MATEU Y LLOPIS, FELIPE. *La Moneda Espanola.* Pub. 1946, 341pp, illus.

ALLAN, JOHN. *Catalogue of the Coins of Ancient India in the British Museum.* Reprint 1967, 318pp, illus.

MEHL, B. MAX. *The Early Silver Dollars, Half Dollars, and Quarter Dollars as Described in Hazeltine Type Table Catalog.* Pub. 1927, 76pp, not illus.

KOSOFF, A. *The Outstanding Collection of United States Large Cents 1793-1857 Formed by Oscar J. Pearl.* This work also includes Sylvester S. Crosby's *The United States Cents of 1793* and S. Hudson Chapman's *The Cents of 1794.* Pub. 1944, 54pp, w/plates.

PROBST, ROMAIN & UNGEHEUER, ANDRE. *Catalogue illustre des Monnaies Luxembourgeoises (984-1977).* Pub. 1977, 206pp, illus.

WRIGHT, B. P. *The American Store or Business Cards.* Reprinted 1961 for the 1898-1901 issues of *The Numismatist.* 180pp, illus.

GREEN, C. E. *Mint Records and Type Table United States Coins.* Pub. 1936, 252pp, illus.

II. In addition to the above we would like to extend our thanks to Donald H. Mead, W. A. Haskell and Randolph Zander for having provided the Library with additional magazines and catalogs.

III. The Library is in need of the following books for its collection:

a. *Coins of the Ottoman Empire* (2 volumes), by Sultan. The reprinted editions.

b. *Numismatica Orientallia Illustrata,* by Marsden. The reprint as revised by Album.

c. *Coins of Ancient India,* by V. A. Smith.

d. *Coins of Medieval India,* by A. Cunningham.

e. *Ancient Coins & Measures of Ceylon,* by T. W. Philip Davis.

Granvyl G. Hulse, Jr.
NI Librarian

*****

DONATIONS REPORT

We wish to acknowledge receipt of the following donations since the last report:

Name	Donation and Stated Value	Preference of Use
KING, Ed.	$10.00 Cash	General Operating Fund

****

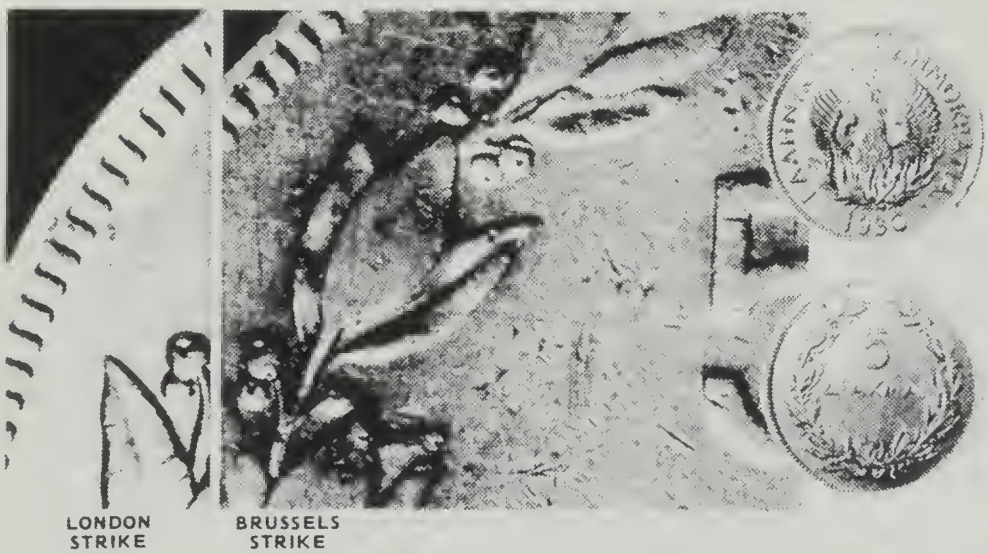
GREECE Y35 -- NI MEMBER APPLAUDS MEMBER NOTICE PAGE

NI member E. D. King placed a "member notice" in the February issue of the *NIB* requesting help in identifying the mints (Brussels and London) on the Greek 1930 5 Drachmai. Below are some of his comments regarding the success of the notice:

"As of February 22nd I have received five responses to the inquiry I placed in the February issue Member Notice Page. I am enthused at the response!

"The *NI BULLETIN* is a superb medium through which we can share each other's interest and knowledge. It's for ALL members, and all members would do themselves a favor by using it (Member Notice Page)!"

For the information of other members (and dealers not knowing how to identify the piece), the correct identification is that in the second set of berries from the top on the left (reverse) has one berry with a dot for the London strike. The Brussels strike has two berries with a dot. See the illustration below which was published originally in the April 1973 (p531) issue of *WORLD COINS* magazine.



We also ran a short article on this coin in the April 1973 (p92) issue of the *NIB* by member Dolores Davis, who originally discovered the method of identification of this coin.

As you see from the above testimonial, it pays to use the Member Notice Page.

COMMON CHINESE COINS -- deja vu

by Thomas W. Keener, Alexandria, Virginia, NI #1207

For those readers with a long memory and an interest in Chinese coins, there appeared in the September, 1977 *NI BULLETIN* (pp278-282) an article on ancient Chinese coins titled "Common Chinese Coins - in 1400 A.D.". That article carried the results from a sort of 10,000 sea-salvaged cash pieces identified by Schjöth number (S#), using Schjöth's *CHINESE CURRENCY*, 1965 edition, Krause Publications, Inc., as a guide. A number of deductions were made regarding the actual scarcity of certain coins (as opposed to their apparent availability if the pricing guide in Schjöth is used as a reference), a number of inferences were made, and a promise was made for a second article on the same subject. Overall, the articles was intended to provide an initial foundation from which the readership could determine the scarcity of one coin listed relative to others which were also listed and apply this information to today's market availability if they wished. Even though the results reflected conditions 500 years ago, there should be some relationship to current conditions.

Since the publication of the above-mentioned article, I have been procrastinating. In the meantime, letters have been received from interested NI members both from inside and outside the United States offering constructive suggestions, additional information and, in a couple of cases, expressing doubt regarding the validity of sampling as a mechanism of estimating coin availability.

First off, it might be best to make a few corrections and additions to the information presented in the earlier article. In September, 1977 I had some trouble reading numbers, or so it would seem. What was listed as S# 551 should have been S# 545. Next, Pat Hogan brought to my attention the fact that the early Chinese carried quantities of coins on many of their trips by boat, and that hoards have been found as far away as the east coast of Africa. While Pat noted that the reason for this is not known, I wonder if, like most people, they didn't want to be caught short of cash on a long trip. If you are still reading at this point, some additional information was provided on the source of the coins by John LeLacheur. He sent me material which indicates that the coins came from several shipwrecks near Pattaya Beach, Thailand. Apparently they were recovered around 1974 and were picked over by a Thai dealer prior to being sold in bulk.

SAMPLING -- A FEW WORDS

Virtually everyone is exposed to the results of sampling on an almost-daily basis. Known as opinion polls, at least three organizations have made a lucrative business out of it (Gallup, Harris and Roper). Often these organizations present their results to policy makers or the general public and the results are noted as being generally representative of the whole nation's feelings on various topics (tax reform, inflation, education, etc.). These results are often so close to a complete poll of the nation that they are used in election years by news organizations to predict the results of the election before the votes are even counted. Now for the part you won't believe, and the part which you should check on your own.

The population of the United States is somewhere around 250,000,000 (two hundred fifty million). When polls are taken to get a national "attitude" on a subject, fewer then 2,000 (two thousand) people are polled. This represents .000008% of the population, and yet the results are normally within 3% of exact. Thus, if a national poll shows that 66% of the people feel a certain way about taxes, a poll of all 250,000,000 people would end up with results somewhere between 63% and 69%. For those who wish to check this out, try page 28 of the June 19, 1978 issue of *TIME* magazine.

SO WHAT?

Generally speaking, the first article presented the results of a poll of Chinese coins which had been accumulated by the original owner some 500 years ago without special attention to any particular system, or so I *assumed*. I also levied a few conditions on my results which have to be accepted as valid if the results are accepted (your option). The conditions were:

(1) that the coins recognized as uncommon or rare on today's market were removed by the Thai dealer as completely as as possible thus leaving a group of "common" Chinese ancient coins;

(2) that the coins came from China's coastal regions, thus isolating the general area where this poll was valid; and,

(3) that the coins were acquired around 1400 AD thus giving an idea of when the poll was valid.

Of course, the intent was to use the results from the poll to point out that coins perceived as presumably common on today's numismatic market, based on the 1965 pricing guide in Schjöth and uneven distribution patterns within the United States and abroad, may very well be difficult to acquire. In fact, there were probably very few of them even 500 years ago. As examples, the following S# list in the pricing guide as being under one dollar, and yet few collectors probably have them: S#'s 481, 512, 531, 548, 549 and 637. Of course, I now expect someone to write me with the pleasant news that they have several hundred of each.

THE BOTTOM LINE

The following chart gives the results from a sort of 20,000 (more or less) ancient Chinese cash pieces. The majority of the coins could not be identified, so there are only about 7500 noted on the chart. Included on the chart are the findings from the first article and some additional information which one writer suggested to make it more useful.

Similarly, I have included two sketches: one of S# 464a, which is discussed in the text of Schjöth but not shown in the line drawings; and, S# 512 which is incorrectly drawn in Schjöth.

I would like to draw your attention to S# 565 on the following chart. You will notice that 69 more coins were identified in the 1978 sort than in the 1977 sort, representing the widest variation on the chart. Admittedly, I was taken aback somewhat at first, not relishing the prospect of eating my words. After all, 173 (found in 1978) is well beyond the 104 (found in 1977) plus 3 percent. It took a while to recognize the obvious. The count for 1978 could have been anywhere between 1 and 224 and still have been within the 3 percent accuracy margin of the 1977 sort, without even allowing for differences in the total coins identified each time (3297 in 1977, 4190 in 1978). Why? Because the plus/minus 3 percent is based upon the total number of coins available in the second sort (104 plus/minus 3 percent of 4190), giving a flexibility of 120 coins in either direction. As a result, the 69-coin difference actually represents an accuracy within 1-1/2 percent of the 1977 figures. The other counts shown on the chart are far, far less than 1 percent difference for the most part.

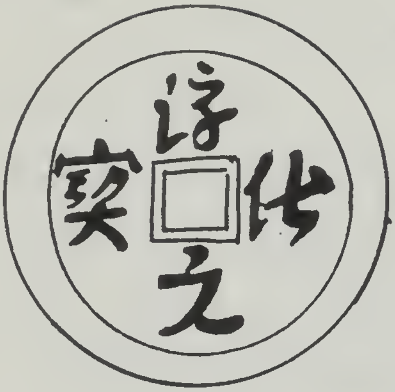
Now for some reference points so this chart might be of use. Using the same procedures as noted in the 1977 article (omitting those coins/emperors with a 1/1000 occurence and then averaging), the reference number is *112* for the individual Schjöth numbers, and *267* for the reign titles. For those of you who collect by S#, find the S# on the chart which interests you, add the number found in 1977 to the number found in 1978 and compare the sum against 112, which represents average "commonness". If less, the S# should be more difficult to find. If more, it should be easier. For those who collect by reign title, compare the total for reign figure against 267 to see how difficult a coin with that reign title should be to find. Again, a word of caution; these figures represent a breakout of coinage in about 1400 AD along China's coast and while they are probably close to what exists today, in terms of relative availability, there is no way the discovery of a major hoard such as recently happened in Japan can be accomodated.

THE LAST WORD

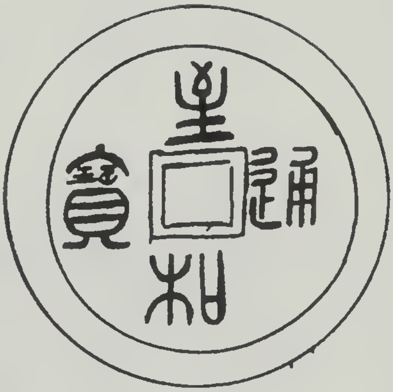
These articles were not intended to be lessons in mathematics or sampling techniques. Yet, they included both and tried to relate to Chinese coins in the process. Since there are no more coins in the batch given to me for sorting, I hope the information I have presented will be of use to you. Happy collecting.

SCHJÖTH NUMBER	NUMBER FOUND, 1977	NUMBER FOUND, 1978	REIGN TITLE AND DATE	TOTAL FOR REIGN
312	223	212	Kai Yuan, 618-26AD	
314	-	2	" " "	
315	31	33	" " "	
316	4	-	" " "	
321	4	3	" " "	
322	1	-	" " "	
323	1	1	" " "	
324	1	-	" " "	
329	2	-	" " "	

SCHJÖTH NUMBER	NUMBER FOUND, 1977	NUMBER FOUND, 1978	REIGN TITLE AND DATE	TOTAL FOR REIGN
330	-	1	Kai Yuan, 618-26AD	
331	-	1	" " "	
334	3	-	" " "	523
353	10	13	Chein Yuan, 756-62AD	23
385	1	-	Kai Yuan, 841-46AD	
398	1	-	" " "	2
441	-	1	Tang Kuo, ca 961AD	
445	1	-	" " "	2
451	14	15	Sung Yuan, 960-76AD	
452	1	-	" " "	30
460	23	43	Tai Ping, 976-84AD	66
463	14	23	Shun Hua, 990-94AD	
464	17	21	" " "	
464a	7	15	" " "	97
465	23	27	Chih Tao, 995-98AD	
467	15	30	" " "	
468	29	27	" " "	151
469	69	85	Hsien Ping, 998-1004AD	154
471	88	127	Ching Te, 1004-07AD	215
474	108	121	Hsiang Fu, 1008-16AD	
475	10	10	" " "	
476	46	55	" " "	
477	19	12	" " "	381
480	77	120	Tien Hsi, 1017-21AD	
481	1	2	" " "	200
484	79	92	Tien Sheng, 1023-31AD	
485	2	12	" " "	
486	127	135	" " "	447
489	9	17	Ming Tao, 1032-33AD	
490	8	8	" " "	42
492	9	26	Ching Yu, 1034-37AD	
494	34	43	" " "	112
496	11	25	Huang Sung, 1038-39AD	
497	124	159	" " "	
498	33	36	" " "	
499	98	122	" " "	
500	111	171	" " "	890



S-464a
(Enlarged)



S-512
(Enlarged)

SCHJÖTH NUMBER	NUMBER FOUND, 1977	NUMBER FOUND, 1978	REIGN TITLE AND DATE	TOTAL FOR REIGN
509	7	10	Chih Ho, 1054-55AD	
510	5	10	" " "	
511	24	35	" " "	
512	2	4	" " "	
513	5	13	" " "	115
514	14	15	Chia Yu, 1056-63AD	
515	18	24	" " "	
516	14	18	" " "	
517	24	44	" " "	
518	-	4	" " "	175
519	47	44	Chih Ping, 1064-67AD	
523	51	52	" " "	
524	-	2	" " "	
526	2	4	" " "	202
527	22	24	Hsi Ning, 1068-77AD	
529	54	84	" " "	
530	12	55	" " "	
531	3	3	" " "	
532	-	2	" " "	
533	122	186	" " "	
535	28	43	" " "	638
545	184	218	Yuan Feng, 1078-85AD	
547	227	269	" " "	
548	3	5	" " "	
549	1	6	" " "	913
565	104	173	Yuan Yu, 1086-93AD	
566	6	5	" " "	
567	179	207	" " "	674
585	57	75	Shao Sheng, 1094-97AD	
586	66	87	" " "	
587	1	3	" " "	289
599	18	34	Yuan Fu, 1098-1100AD	
601	-	2	" " "	
602	20	30	" " "	104
607	64	108	Sheng Sung, 1101AD	
609	22	61	" " "	
610	26	46	" " "	327
628	64	45	Ta Kuan, 1107-10AD	
629	6	5	" " "	120
634	57	97	Cheng Ho, 1111-17AD	
635	111	75	" " "	
636	-	2	" " "	
637	3	2	" " "	347
649	4	5	Hsuan Ho, 1119-25AD	
653	2	3	" " "	
654	2	3	" " "	
655	2	3	" " "	24
714	2	-	Shun Hsi, 1174-89AD	
719	1	-	" " "	
725	-	4	" " "	7
763	1	-	Shao Hsi, 1190-94AD	1
788	1	-	Ching Yuan, 1195-1200AD	1
877	1	-	Chia Ting, 1208-24AD	1

SCHJÖTH NUMBER	NUMBER FOUND, 1977	NUMBER FOUND, 1978	REIGN TITLE AND DATE	TOTAL FOR REIGN
1036	-	1	Kai Ching , 1259AD	1
1038	1	-	Ching Ting, 1260-64AD	
1039	-	1	" " "	2
1052	-	1	Hsien Shun, 1265-74AD	1
1083	6	6	Cheng Lung, 1156-60AD	12
1098	-	2	Chih Ta, 1308-11AD	2
1137	101	74	Hung Wu, 1368-98AD	
1138	1	2	" " "	
1140	1	1	" " "	
1141	2	-	" " "	
1145	5	3	" " "	
1148	2	4	" " "	196

****

FROM THE MAILBOX

"Notes on the Coinage of Sinkiang"

Following my article on the coins of Sinkiang (*NIB*, Feb. '79, pp44-53), I was delighted to receive a very informative letter from Mr. John G. Humphris, who is an expert on the history and languages of this area, and also of neighboring Russian Turkestan. I am happy to stand corrected on some points since I had hoped that my article (my first effort on coinage) would stimulate interest and further information.

I am sure that Mr. Humphris is correct in suggesting that Col. Scully took with him a "bank yak" with Chinese silver ingots ("sycee") and copper cash. He mentions that "gold sovereigns and silver rupees would have been offensive to the local fanatical Muslim populations because they depicted living beings". I have seen a photograph of Col. Scully in the midst of a semi-circle of Turki tribesmen, evidently before a feast of some kind, and I agree that, in his shoes, and noting the appearance of his hosts, I would have been very conciliatory!

I was glad to hear of the Turkic hierarchy, and will pass on the information to my first wife that her great grandfather would have been ranked a "Miralay". I took the classification of the Yuzbashi from the diary; Col. Scully was obviously much better at describing birds than people.

On the question of my rather frivolous problem concerning the list-price of the copper "pul" at a contemporary price of 44 taels of silver (1875), Mr. Humphris quite properly pointed out that an accurate answer would have required much more information, since the "tael" was more a unit of weight than value, and, in terms of silver, varied considerably from time to time and from place to place. I estimated the cost by averaging the Sinkiang and K'uping tael, with a 10% leeway for the fineness of the silver, and came up with the price of $US 65.00, so Mr. Humphris is spot on!

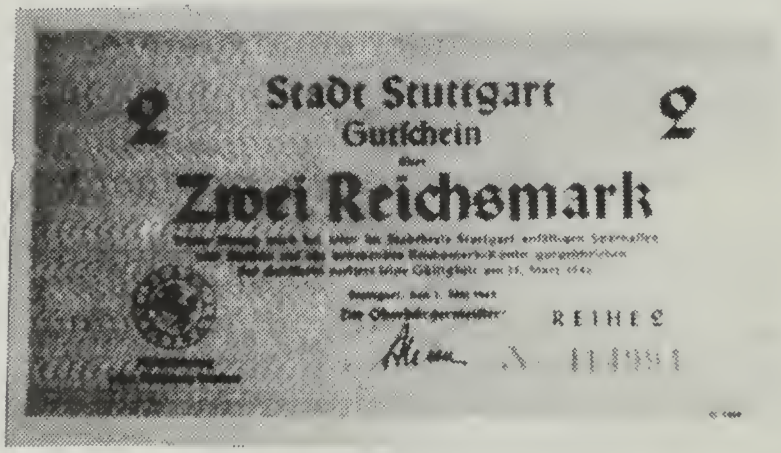
David S. Smith
Miami, Florida

NEW 1945 GERMAN NOTGELD SURFACES

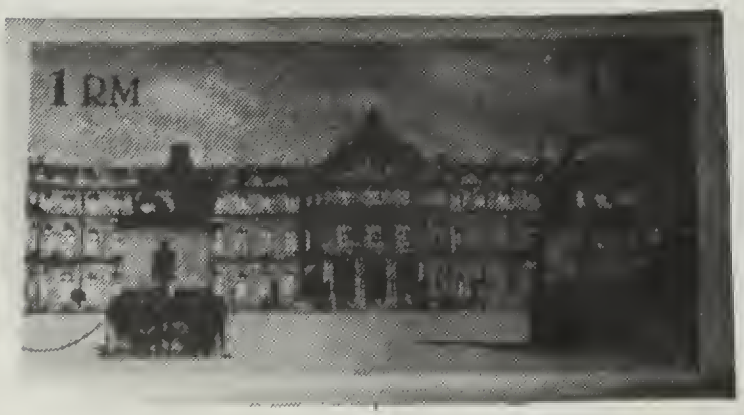
by W. A. Haskell, Klein Bieberau, West Germany, NI #LM15

The notgeld issues of Germany of the post World War Two period of 1947-48, prior to currency reform, are well known from Dr. Arnold Keller's catalog *Das Notgeld der Deutschen Währungsreform 1947-48,* printed by Battenburg of Munich. Reich banknotes of the emergency type of 1944-45 are also cataloged by Pick, by Rosenberg and by Jaeger and Haevecker.

However, from time to time other notgeld issues turn up, so that apparently no listing is yet complete. A series of notgeld printed for the south German city of Stuttgart (pop. 613,000) dated May 1, 1945 has appeared. The series was apparently prepared but never issued during the chaotic closing days of the war. It is handsome, well-designed and denominated 1, 2, 5, 10 and 20 Reichmark. Each obverse is the same on all notes, having the seal of the city in red on the lower left corner and the city rampant horse symbol as an underprint center. A file (Reihe) number is found lower right with a red serial number beneath. An expiration date of March 31, 1946, is indicated in the text.



2RM, Obverse



1RM, Reverse

The 1 RM is greenish gray and the reverse has the value and a view of the entrance to the "new" palace (Neuesschloss) from the "Schlossplatz", or palace square, begun under Duke Carl Alexander in 1744.

2 RM, Reverse

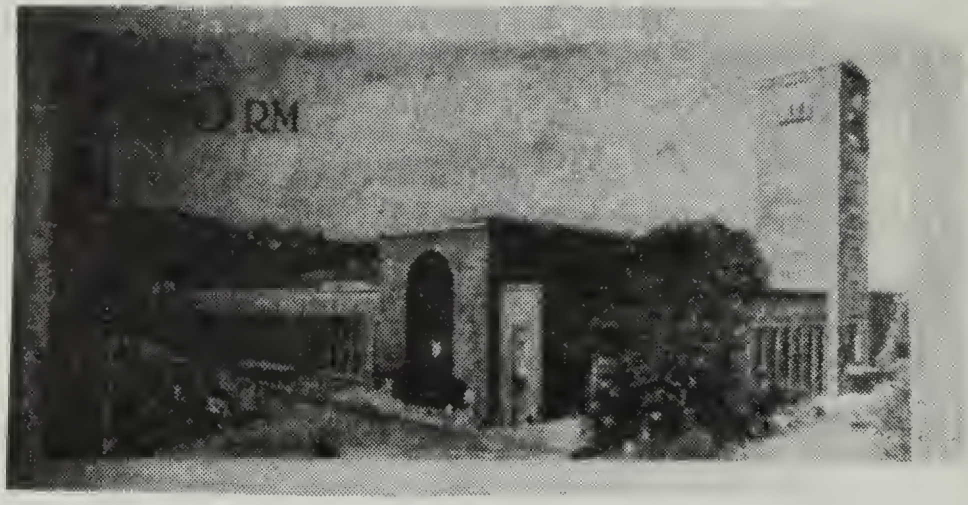
The 2 RM note is a pinkish-brown. The reverse has a view of Schloss Solitude (Solitude Villa) located about twelve miles outside Stuttgart; it was erected as a hunting lodge for Duke Carl Eugen between 1764 and 1769, by the master builder Phillip de la Guepierre from the French Royal Court.

5 RM, Reverse

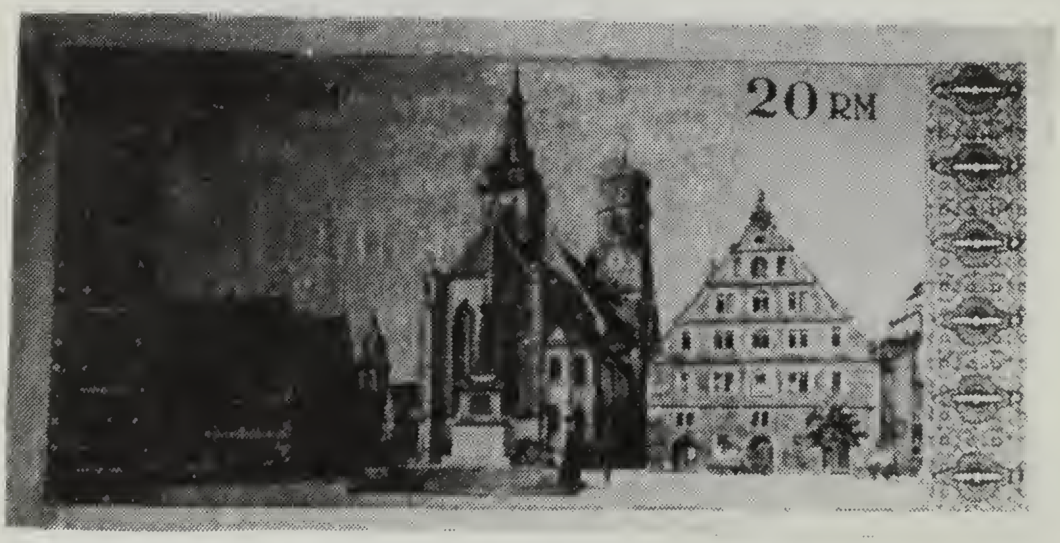
A 5 RM note is colored a russet brown and shows a view of the old castle (altes schloss) of Stuttgart, a massive quadrilateral building flanked by round towers built largely in the 16th century, and now housing the Wurtemburg historical museum (Wurttembergisches Landesmuseum).

The dark green 10 RM note shows (illustrated following page) a sweeping view of the original Stuttgart railway station (1914-27, hauptbahnhof) before damage by World War II bombing.

A 20 RM note in grey-green (illustrated following page) depicts Schillerplatz (Schiller Square) in the heart of the old city named for the statue of Schiller (1759-1805), erected in 1839 and sculpted



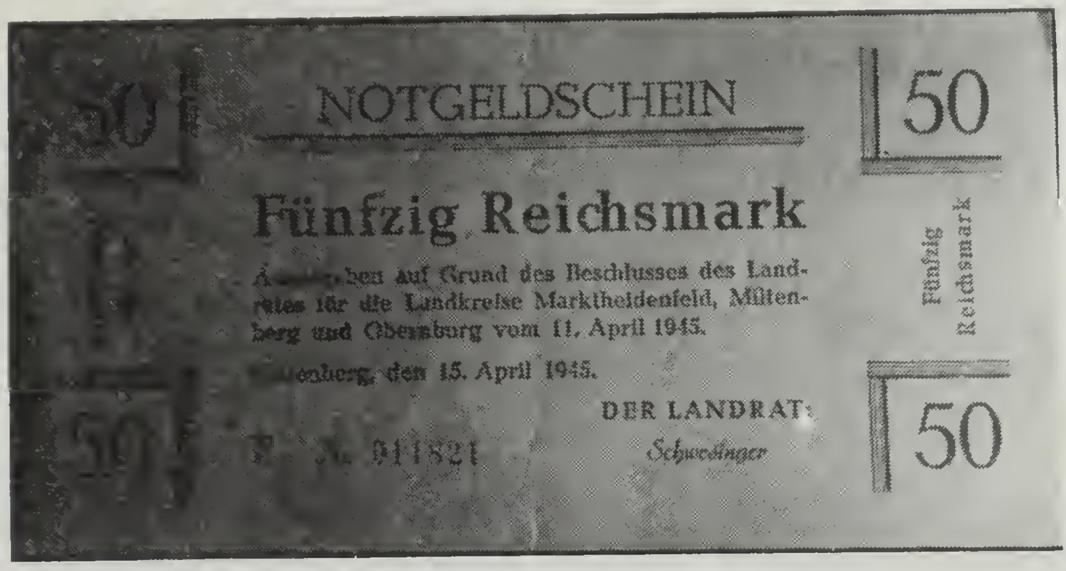
10 RM, Reverse



20 RM, Reverse

by Thorwaldsen. The east end of the Stiftskirche (Collegiate Church), which dates from the 13th century, shows in the center of the picture.

Another issue to come to light in past months is a 50 Reichsmark "notgeldschein" issued in Miltenberg (pop. 8500), located 25 miles southeast of Aschaffenburg in Lower Bavaria, and dated 15 April 1945. Miltenburg lies between the forests of the Spessart and Odenwald in central Germany on the Main River, and contains many beautiful old half-timbered houses. The note was issued in agreement with the town



NOTGELDSCHEIN

50

Fünfzig Reichsmark

Ausgegeben auf Grund des Beschlusses des Landrates für die Landkreise Marktheidenfeld, Miltenberg und Obernburg vom 11. April 1945.

Miltenberg, den 15. April 1945.

DER LANDRAT:
Schwedinger

[illegible] Nr. 011821

Fünfzig Reichsmark

50

Miltenberg Note, Uniface

councils of the nearby villages of Marktheidenfeld and Obernburg am Main. The note, uniface, is on purplish paper with dark blue printing and a red serial number.

Hopefully, a complete catalog of notgeld of the period 1945-45 will ultimately appear.

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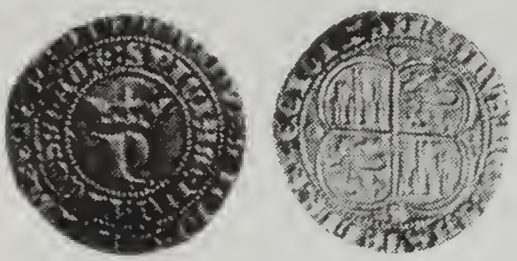
REAL

by I. C. G. Campbell, Weeping Water, Nebraska, NI #LM12



Most everyone is familiar with the denomination "real", or, more commonly, "reales". But, how many of us are familiar with its origins?

Thus much used denomination, associated always with Spain and its dominions, was indeed first minted in Spain and was a silver coin which was struck, and circulated, in that part of Spain not under the control of the Moors. It would seem that Pedros III* of Castile was the first ruler to strike it at Seville and Burgos. He ruled 1350/68. The money was called, in medieval Latin, "Nummus realis", i.e. money of the king. Naturally, it was soon abbreviated to "real". Its first value was 1/8 peso and was divided into 34 maravedis.

The "real" illustrated above is of Pedro I (1350-69) struck at the Sevilla Mint. The obverse has the crowned "P" while the reverse has the arms of Castile & Leon Kingdoms (later provinces).

* III of Castile, I of Joint Kingdom.

East Asian Minting Techniques: the other tradition

by Daniel Cruson, Botsford, Connecticut, NI #694

As most coin collectors quickly learn, coinage was invented at approximately the same time in two widely separated areas of the world and from these two cradles of coinage, all subsequent world coinage developed. The more well known invention of coinage occured in Lydia, sometime during the 7th century BC and from this developed the western tradition of struck coinage. Less well known is the Chinese invention of coinage which current scholarship indicates occured in the 7th century BC in the Yellow River Valley.[1] This invention led to the eastern tradition of cast coinage which is now extinct.

The rise of the two very different methods of producing coins in these traditions followed naturally from the nature of their invention. The western tradition developed from the Lydian practice of placing a figural punch mark on globs of electrum (a natural alloy of gold and silver) of uniform weight. This punch mark probably served to certify the weight of the piece of precious metal. The process quickly spread from Asia Minor to the Greek City States where the punch was enlarged into a die with an elaborate design which was impressed into one side of a thick, disc shaped piece of silver. Soon two dies were used and both sides of the coin were impressed with different designs, giving birth to the type of coin production which has persisted to the present day with changes only in the minting technology. Casting remains unused in the West with the exception of a few rare cases such as the production of the cumbersome coins of very early Rome. These casting experiments were usually short-lived.

In China coinage arose in a substantially different manner. Early trade in the Yellow River Valley necessitated a medium of exchange and such a medium developed in the form of agricultural implements such as spades or hoes and knives for high values and cowry shells for low. The cowry shells were apparently cumbersome and of such low value that they were abandoned before the end of the Chou dynasty in the 3rd century BC, but the agricultural implements, being made of bronze, had a substantial intrinsic value and so continued to circulate readily. Before long these pieces were being produced solely for commerce and their agricultural functions were forgotten. This was reflected in their reduced sizes. As China entered the 3rd century BC monetary spades had been reduced to only 45mm whereas the knife money measured only 170mm and had lost any vestiges of a sharp cutting edge.

Since the original agricultural implements had been cast in bronze, these later monetized replicas were also cast. As round coins developed during the closing years of the Chou Dynasty, they were produced in the same manner as the spade and knife imitations with which they circulated. Thus a tradition of casting money developed which would spread throughout East Asia and continue down to the end of the 19th century.

The process of casting coins in East Asia, like the process of striking coins in the West, changed only slightly over the more than 2500 years of its existence. In fact, East Asian minting changed less since it never became mechanized as did the striking process in Europe with the invention of the screw press. The basic casting process consisted simply of pouring molten bronze into a mold carrying the impressions of several coins. When cool, the mold was broken open, the coins separated from the bronze which had formed in the casting channels, and the individual coins were polished and filed to remove casting debris.

The production of molds was the key process in coin casting and this, although changing only slightly throughout its history, changed more than did the form of the coins produced in them. The first molds, used to cast the agricultural implement replicas of the 6th through 3rd centuries BC, were two simple pieces of clay with an obverse and reverse inscription and design scratched into each piece along with proper casting channels leading to their upper edge. When strapped together molten bronze would be poured into the casting channel, producing a spade or knife replica when the mold was broken open and the casting flanges removed. These early pieces showed no signs of further treatment beyond the removal of excess bronze left from the casting channels. This is especially true of the late pu or spade pieces and the Ming knives which often show excrescences of bronze beyond their very shallow rims.

With the development of round coinage in the 3rd century BC, a new and simpler casting process was also developed which resulted in a uniface coin. The clay was prepared and inscribed with the desired obverse characters and casting channel in the same way as it had been for the spade and knife pieces. Rather than carving a reverse, however, a flat piece of clay was placed over the inscribed mold making an effective one piece mold. Quite possibly this flat piece of clay was in turn inscribed with an obverse design on the face away from the mold and another flat piece of clay placed over that. In this way a stack of one piece molds could be produced increasing the efficiency of coin production. The process of stacking is conjecture but an examination of many early round coins such as the Ming and Yuan coins with their absolutely flat reverses and absence of a casting seam, clearly reveal the rise of the single mold process.[2]

Molding practices during this period of independent and warring states was apparently as varied as the states themselves. In addition to the single mold coins produced by some states, round coins showing obvious signs of the double mold process were produced by others. Both of these round coin types circulated with the late spade and knife pieces which were still being produced. The monetary system of the late Chou Dynasty clearly reflected the political chaos of the times.

With the short-lived Ch'in Dynasty (221-206 BC) and the tyranny of Emperor Ch'in Shih Huang Ti, came unification and standardizaton. Round coins bearing the inscription Pan Liang or half ounce became the standard coinage of north China and the use of spades and knives ceased. In addition to the coins, the casting process was also standardized. An examination of the Pan Liang coinage which was made throughout the Ch'in and into the early Han Dynasty, uniformly shows the flat reverse typical of single mold casting.

The Pan Liang coinage, like the earlier pre-Ch'in pieces show no finish work beyond the removal of the bronze which had collected in the casting channels. Frequently these coins bear flanges of excess metal around their edge and in the square central hole, which was made when the molten bronze spread beyond the depression in the mold. These flanges were apparently never filed off, unless the coin was clipped after it had been placed in circulation. As a result, all Pan Liang coins are characterized by sharp edges and an absence of the casting seam and squared edge which characterized later Chinese coinage. Sometimes the outer edge also shows a thickening or a nipple at one point on its circumference which is the remnant of the casting channel that had been carelessly clipped too far from the edge of the coin.

As the Han dynasty became firmly established, several important changes occured in both coin type and casting methods which were to set the pattern for minting over the next 2000 years. For almost 100 years from its founding, the Han emperors continued the Pan Liang coinage of their predecessors. These Pan Liang, however, suffered a continual debasement which is reflected in the continuous reduction in size over the period that they were issued. Finally, Emperor Wu Ti (140-87 BC), after several unsuccessful experiments in currency debasement, established a new full valued coin which was characterized by the characters Wu Chu (five Chu). This was done in 118 BC and was so successful a change that Wu Chu coins continued to be minted and circulated with almost no changes until the beginning of the T'ang Dynasty in 619 AD.

The development of the Wu Chu coinage brought with it a change in the minting process. Single mold casting was dropped in favor of double mold casting. Now an obverse impression with the two characters, Wu Chu, written in reverse (mirror image) and a pronounced outer rim, was made in one piece of clay. Then another piece of clay was impressed with a reverse which was blank with the exception of a pronounced outer rim and an inner rim surrounding the square center hole. These two molds with their proper casting channels, were aligned and placed together so that the molten bronze flowed into the mold cavity and produced a bifacial coin.[3]

When cool, the mold was broken open and the casting channel debris cut off. The coin then underwent a finishing process which consisted of placing a number of coins on a square shaft and rotating them against a file or chisel to remove the casting flange and seam. The finished product was a coin with two obverse characters, an outer rim (to prevent clipping) on the obverse and reverse, and an inner rim around the hole on the reverse only. The outer edge was squared as a result of the final filing but the edge of the inner hole was left untouched. In most surviving peices a casting seam can still be seen running around the inside of the square hole.

At about the same time as the Wu Chu coins were introduced, another change took place in the mold making process which allowed for a greater degree of uniformity in the form of the finished coins. Previously, the clay molds had been carved by hand and since they had to be destroyed in order to extract the coins after they were cast, each mold had to be separately carved for each casting. This cumbersome process resulted in minute differences in every coin produced.

An even more serious problem with this method of production was its slowness. As the economy of China entered its first real golden age during the early Han period, there was a need for greater quantities of cash pieces to be put in circulation. This need could not be met with the slow process of hand carving molds.

In an attempt to make Wu Chu cash more uniform than its predecessors had been, as well as to increase the efficiency of production, positive models or mother molds were invented. These were carvings made in stone or a durable metal such as bronze, and fashioned to look like the raised obverse of the finished cash piece. Above this model a raised ridge was carved which ran to the edge of the positive mold from the rim of the carved mold. This would produce a casting channel in the negative mold. A similar positive model was then produced for the blank reverse. These models were pressed in wet clay producing a negative impression which, when they were baked, produced both sides of the final casting mold.[4] Thus a single positive model would produce numerous, identical negative molds eliminating the necessity of carving a new negative mold at each casting and greatly increasing the number of negative molds which coould be produced in a short period of time.

At about this time, or possibly a little earlier during the Pan Liang period, multiple casting was introduced allowing for even greater efficiency in coin casting.[5] This consisted of making several coin impressions in the same piece of clay and connecting them with casting channels so that as the molten bronze was poured into the mold, several coins were produced simultaneously.

From the evidence given by the few extant coin molds of this period, it appears that two different methods of multiple casting were used during the Wu Chu period. In the Yellow River area of north China where a distinctive light, greyish brown clay was used for molds, coin impressions were arranged in two rows with a large casting channel running down between them. Smaller casting channels ran from the main channel to each coin impression. When the casting was complete and the mold opened, this method produced a coin tree; that is a bronze rod with cash pieces radiating off of its entire length along both sides. This casting configuration was to become the standard for China and would continue until the end of cash casting in the 19th century.

The other method developed in the Yangtze River area where a distinctive red clay was used for molds. This method consisted of arranging the coin impressions in a circle around a central hole which passed through the mold perpendicular to the plane of the coins. Casting channels were made from the central hole to each coin impression. The coin molds were then placed together and stacked with other similar molds so that the central casting holes were aligned, producing a large casting channel running perpendicularly through the center of the entire stack. The molten bronze was introduced though this central channel. When the casting was finished and the molds broken open, a coin tree was produced which had several wheels of cash radiating from an axle-like shaft of bronze. This method probably died out during the later part of the Han Dynasty for the characteristic red clay mold with the circle of cash impressions is not found for coins post-dating the Wu Chu period.[6]

There is some question as to what kinds of materials were used in making molds during the Wu Chu and subsequent periods. It is fairly certain that clay was the predominant material, at least until the T'ang Dynasty, but some sources claim that stone and bronze were also used.[7] The use of these more durable naterials for negative molds seems unlikely since they would be difficult to produce in large quantities and would easily suffer damage after the molten bronze had cooled and they were opened to release the finished coins. Stone molds are brittle and any heavy blow used to separate the molds would tend to crack or shatter them. The use of cast bronze molds seems equally improbable since the mold would have to be heated to receive the molten coin metal and even with a coating of some sort in the mold itself, fusing of the coin metal to the mold would be difficult in not impossible to avoid.

It is much more likely that these materials were used to produce the positive mother molds where a substance that could stand up to frequent impressions in clay would be desirable. Most of the extant stone and bronze molds which can be called with some assurance authentic, are in fact mother molds.[8] Those negative molds that are made of these materials and which appear in modern collections are highly suspect. The few that I have examined in collections such as that of the American Numismatic Society, appear to have been made quite recently as numismatically related antiques for avid collectors who wish to enhance their coin collections with minting apparatus. There are even some recent cast bronze molds of Wang Mang kinfe money which were produced in East Asia to be used as ash trays.

The type of casting developed during the early Wu Chu period lasted just about as long as the Wu Chu coins themselves. With the introduction of the Kai Yuan coinage of the early T'ang Dynasty (619 AD) came two small changes in minting techniques which transformed coin production into the form that would last until the decline of the Ch'ing Dynasty in the late 19th century.

The Kai Yuan coins themselves differed from their Wu Chu predecessors by the addition of two characters to the obverse, creating the four character legend Kai Yaun T'ung Pao or "precious currency of the Kai Yuan period". Four character legends became standard until the end of cash production along with the marks or Chinese characters which were often added to the reverse of the coins from the T'ang period on.

These Kai Yuan coins were produced using mother cash rather than mother or positive molds. A mother cash, or more properly Mu Ch'ien, is simply a full sized model of the finished cash piece carved out of pure copper or, in some later cases, tin. These cash are distinguished from circulating cash only by the material from which they are made, the light evidence of tool marks on the face of the coin, and its very slightly larger size. Mu Ch'ien would then be used to make the negative impressions in the casting mold and bars of metal placed between the model cash would serve to produce the casting channels.

The use of Mu Ch'ien seems most well adapted to sand casting and it is probably at this time that the use of casting sand for molds begins. Unfortunately, sand molds are completely destroyed after casting unlike clay molds which leave durable remnants. As a result there is no direct evidence for the origins of sand casting. Coins with a sand texture in the field would indicate the use of sand molds and such a texture does appear in early Kai Yuan pieces but since the sand texture is practically indistinguishable from corrosion pitting, such evidence is not at all certain.

The earliest detailed descriptions of the sand casting process date only from the late 19th century, but since the process probably changed little from the time of its introduction, we may treat these descriptions as accounts of the casting process during most of China's middle and recent ages.[9]

First the casting sand is prepared by mixing pure sand with the powder of crushed bricks and 4% coal powder. According to Chinese sources, the brick powder gave the sand some power of adhesion and served as a binder while the coal powder was burned off and served to make the characters clear after casting. A frame is then made of pear wood slats and placed on a dry three inch thick wooden board that has been set on a flat floor. Into this frame the casting sand mixture is poured, lightly tamped down and the surface smoothed off.

On this smooth surface the mother cash or Mu Ch'ien are arranged into three tree like forms each containing about forty cash, and round metal bars are placed between each cash and a larger bar which runs to the end of the frame. These bars will form the casting channels. With all of this in place, another frame is placed on top of the first and more casting sand mixture poured in, tamped down and smoothed off. These two frames form the mold once they have been separated and the Mu Ch'ien and bars removed. While they are separated, the mold impressions are dusted with coal powder.

To increase the efficiency of this casting process, the two frames are turned over and more Mu Ch'ien are impressed in the back of the first mold. A third frame is placed on the other two and filled with sand mixture, tamped and smoothed as before. The three frames are turned over and the process repeated until upwards of fifteen layers of molds are made. This stack is finished by placing boards on each end and binding the whole assemblage with a rope which is then twisted tight.

At this point the molten bronze is carefully poured into the exposed ends of the casting channels located at the edges of the frames. This is an especially tricky process during which the pour has to be done at exactly the right speed; too quickly and the bronze will not flow smoothly into the mold cavities, too slowly and it will thicken and not penetrate to the extremities of the mold.

After cooling, the mold is broken open, the cash trees removed and the finishing process begins. A steel wire brush is used to clean the coins of loose casting debris after which they are cut off the tree. Any flanges of metal left on the coin edges are snipped off with pincers. The coins are then threaded onto a square stick and rotated against a file to square the outer edges. (This is the reason that East Asian cash pieces have square holes rather than round ones.) This process removes excess metal and the outer casting seam. The inner edge, around the square hole is left untouched unless it is obstructed by a flange, in which case it is snipped out. It is characteristic of all these later cash pieces that the casting seam can still be seen in the central hole and that the outer edge is smooth and square often with light file marks still visible. Since counterfeiters were rarely careful with this finishing process, absence of these characteristics is sometimes indicative of their work.

A final treatment is given to the coins to remove the blackish copper oxide which had formed on them during casting. This treatment consisted of placing the coins into a large tub of about two feet diameter with handles on two sides. A grinding compound is introduced and the tub is shaken by its handles for about an hour. In this manner 10,000 coins can receive final polishing simultaneously.

As the need for large quantities of cash pieces increased throughout the later dynasties of China's history, the problem of creating uniform cash pieces again rose. The number of coins that can be produced before the Mu Ch'ien is badly worn is fixed. As the number of cash pieces produced increased, as it did dramatically in the 18th and 19th centuries, the number of Mu Ch'ien needed also increased, creating the problem of producing uniform Mu Ch'ien.

The problem was solved in the early Ch'ing Dynasty (early 18th century) by adding another step to the mold making process. Before Mu Ch'ien are produced, a specimen cash or Tsu Ch'ien is made. This specimen was produced at Peking under the Emperor's supervision, by carving an exact model of the desired cash piece in pure copper. One Tsu Ch'ien was sent to each of the provincial mints where a rubbing of it was made on rice paper. The rubbing was then pasted on a tin sheet which was as thick as a standard cash piece and very carefully the excess background metal was carved away leaving a tin cash piece which was almost identical to the pure copper Tsu Ch'ien. These tin cash were then used as Mu Ch'ien.[10] Since the rubbing process did virtually no damage to the Tsu Ch'ien, it could be used to produce identical My Ch'ien indefinitely or until the Emperor decided to change the design of his coinage.

As with any minting process, errors often get out of the mint and circulate freely. In the struck coinage of the West these errors have become a fertile field for collecting which often tells a great deal about the minting process to the intelligent collector. Likewise, the cast coin tradition has its errors which reveal the imperfections of the casting process. Although they have not become a special collecting area, knowledge of these errors greatly enhances the appreciation of any cast coin collection and demonstrates several facets of the casting process. A list of common errors has been put together by Werner Burger and it is worth reiterating in summary fashion.[11]

1. Cracks which appear raised on the field of the cash piece. These are produced when the sand in the casting frame was not compressed sufficiently. While turning the frame, cracks appeared and were filled with metal while casting. This produced the raised image of a crack on the finished coin.

2. A rotated reverse. The characters on the obverse and reverse of a cash piece should be aligned so that when the coin is held by the top and bottom and turned the characters on both sides are right up. When the frames are misaligned, however, the reverse characters will appear to be rotated either 90° or 180°.

3. Double characters or characters out of place. This is caused by movement of the Mu Ch'ien after they had first made an impression in the sand of the mold.

4. A coin with two obverses or reverses. These are rare and were created when two obverse or two reverse molds were placed together by mistake. (Beware of altered errors of this type. Soldering two obverses or two reverses together is a favorite trick of the forger.)

5. Large dots, crescents or other irregular forms found in the field of the coin. This frequent error is usually produced by a large grain of sand or other impurity which appeared in the molding sand mixture and fell out when the Mu Ch'ien were removed.

6. Blurred or filled characters. These were usually produced when the Mu Ch'ien had been improperly cleaned and the characters on the Mu Ch'ien became filled with sand.

7. Spotted cash. This is often a product of improper alloying or not allowing sufficient time for the alloying metals to melt together. (These errors should be examined carefully for spotting is also possible as a result of simple staining.)

8. Thick or thin cash. Often these are the product of a counterfeiter but occasionally they were produced when the frames were not closely fitted together or because the Mu Ch'ien had not made a deep enough impression in the sand.

In addition to these mentioned by Burger, other errors can sometimes be found such as those in which the obverse or reverse of the coin appear to have slipped to one side creating an error that looks very much like the off-center strikes found occasionally among modern American coins. This casting error is created by either a misalignment of molds due to carelessness or the combination of an obverse and reverse mold produced by two different sets of Mu Ch'ien which were placed on the sand mixture with slightly different spacing. Indistinct characters also appear as the product of a badly worn Mu Ch'ien.

The ubiquitous sand holes which appear in almost every type of cash piece, are usually the product of careless casting. When the molten metal is introduced into the mold too quickly and trapped air is not allowed to escape, air bubbles form which become holes in the finished cash piece. Sand holes are found most frequently in the poor grades of cash, produced under conditions in which supervision of the minting process is lax. They are also frequently the product of counterfeiting where the forger takes less care with his product than an official minter would.

The process of casting cash pieces just discussed was not only typical of China but it also was the basis of a true coinage tradition for all of East Asia. By the early 8th century AD, Japan had adopted cast cash pieces and had begun to produce them in a manner similar to that of the post-T'ang period at least fitfully until the early 17th century when they began producing large quantities of the Kanie Tsuho pieces. Similarly, Annam (modern North Vietnam) began casting cash by the late 10th century, although the coins of this kingdom were always a crude reflection of China's, being usually smaller, thinner, and more crudely made. Korea, too, produced cash pieces intermittently from the 10th through the 17th centuries at which time she began to produce Sang P'yong Bo coins in tremendous quantities. Even the peripheral areas such as the Malayan States and the Ryukyu Islands imitated Chinese cash although the Malayans altered the pattern to fit their Muslim cultural interests. In all of these areas a casting process was used that was similar to China's. In poor times production was halted and Chinese cash pieces were imported in bulk to circulate freely with existing native issues.

The cast coin tradition of East Asia was indeed a great one covering more than 25 centuries and spread over a geographical area equal to one-third of the earth's surface. It is now, however, extinct. The casting process was simply too slow to meet the incredibly large demand for coins in an industrial economy and casting did not lend itself easily to mechanical mass production. Thus, as the desire to emulate Western industrialization effected one Asian nation after another, there was a concurrent application of mechanized production to both goods and coinage. The minting technologies of the West were imported along with other industrial technologies so that by the beginning of the 20th century, casting had ceased with the exception of Vietnam which continued to use the casting process through the Second World War. Now the only casting being done is that of the forger.

Footnotes:

1 - A full discussion of the invention and early development of Chinese coinage along with discussion of the dating of this event can be found in Wang Yu-chaun's *Early Chinese Coinage*.

2 - These coins are illustrated in Schjöth #73-78 and Lockhart #97-100. For good photographs of these coins see Wang Plate LI, #10 and 11 and Plates LII and LV.

3 - Some type of coating such as lamp black may have been used to line the mold cavity before the two halves of the mold were joined for casting. This would have facilitated the removal of the finished coins, but since no record or evidence of this practice survives it is only conjecture.

4 - Photos of these early positive molds or models along with negative molds can be found in Coole, p.36, 37 and 110.

5 - The time at which casting innovations were made is often difficult to determine. Unless casting evidence exists on the coin itself, we have to rely on the evidence supplied by the mold. Unfortunately, very few molds have survived and there are many modern imitation molds produced for 19th and 20th century collectors. As a result, the dating of a minting innovation is often highly conjectural as it is in the case of the beginning of multiple casting.

6 - Photos of these red clay molds and a regrettably brief description of their use can be found in Coole, p.36, 37 and 110.

7 - See especially Burger, p.21.

8 - Werner Burger claims that some mother molds of the Six Dynasties period (4th through 6th centuries AD) were made of wood and that some of the cash produced with these positive molds still bear the "grooves of the wood of a worn out mold". Berger, p.21.

9 - A number of these accounts have been translated from the Chinese by Werner Burger, p-21-33.

10 - Some sources claim that Mu Ch'ien were cast in copper with molds made from the specimen Tsu Ch'ien. It is quite possible that both methods of making Mu Ch'ien from the specimen were used at different mints and also at different times in the same mint.

11 - See Burger, p.25-26.

Bibliography:

(The following sources are in English and have been included for those who wish to pursue the subject of casting further. Chinese sources have been left out because most readers will not be familiar with the language and will not have access to libraries where these sources may be found. In most cases important Chinese source material has been translated or otherwise incorporated into these English sources, especially Burger.)

Werner Burger - *Ch'ing Cash Until 1735.* Mai Ya Publishing, Inc., Taiwan 1976. Burger devotes a whole chapter to casting and includes helpful illustrations and plates. He relies heavily on translated quotes which are presented often without further comment. This makes some passages difficult to understand. Overall this is the best source on the subject.

Arthur Braddan Coole - *Coins in China's History, 4th Ed.* Intercollegiate Press, Mission, Kansas, 1965. This work contains some excellent photographs of coin molds but is short on explanation.

Norman Jacobs & Cornelius C. Vermeule III - *Japanese Coinage, 2nd Ed.* Numismatic Review, New York, 1972. This work contains a two page summary (p.39-40) of casting processes entitled "The Process of Casting the Pre-Meiji Minor Issues".

Neil Gordon Munro - *Coins of Japan.* Yokahama, Japan, 1904. Munro's introduction contains some brief comments on casting techniques (p.xiii-xiv).

Peking Old Palace Museum. *Coins of the Ch'ing Dynasty.* 1937. (1972 reprint). Although the text is in Chinese, the reissue contains an English review of the work written by John C. Ferguson which appeared in the *Journal of the North China Branch of the Royal Asiatic Society*

in 1938. This review contains some valuable notes on Mu Ch'ien and Tsu Ch'ien.

Wang Yu-ch'uan - *Early Chinese Coinage.* American Numismatic Society *(Numismatic Notes and Monographs 22)*, New York, 1951. This source contains no information on the casting process but it does contain a superb study of the development of Chinese coinage along with detailed notes and photographs of the characteristics of early coins.

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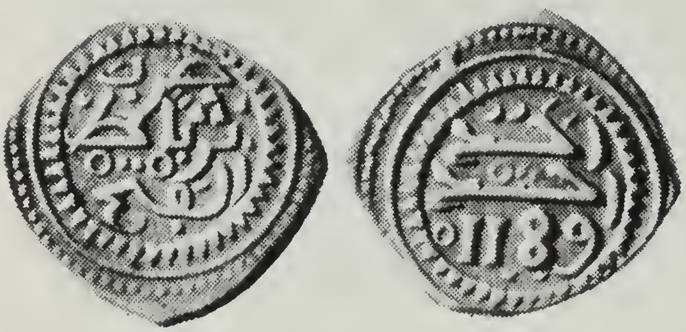
COIN NOTES

by I. C. G. Campbell, Weeping Water, Nebraska, NI #LM12



This very striking coin is a "MIKTAL" of Morocco struck at the Rabat (Rabath-ul-Fath) mint. Both the design and the European numerals for dating are characteristic of Morocco. The money was struck by members of the Jewish community and it is thought they had most of the contacts with Europeans. The coin is silver (C30). Mitkal is a version of the word "MISCAL" which was a unit of bullion weight in Islamic countries. Since the word was writen in Arabic characters, its spellings in English (or other languages, for that matter) vary according to the system of transliteration used and the particular pronunciation used in the country concerned. Thus it may be Metsqal, Mitsqal, Mithqal (q is hard). Like many oriental coins, the original weight was a measurement of seeds. In this case it was equal to four grandums, or grains of wheat, or 24 nakods, or peas. This coin was struck from 1188/91 A.H., but the original denomination was introduced by Muhammad Abd-Allah ben Ismail 1171--1205 A.H. In Persia the standard weight was established as 250 miscals equals 37 troy ounces Ar. The denomination was also used in Turkestan by the Chinese.

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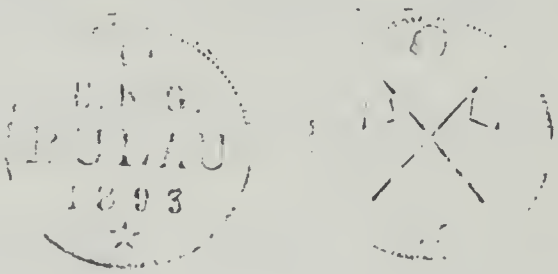
IDENTIFICATION, Please?



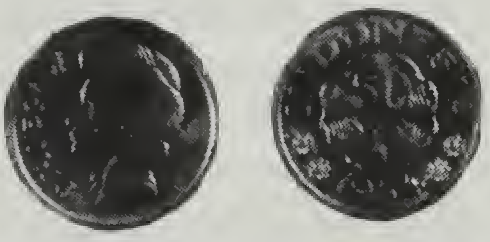
(Approx. 3/4 actual size)

The above rubbing was submitted by member N. T. Shah, P. O. Box 217, Tabora, Tanzania. Anyone who can identify this piece or give any information concerning it should contact Mr. Shah. A copy of your information should also be sent the editor for inclusion in a later issue.

THE INDONESIAN 1954 50 SEN

by Dick Hanscom, Fairbanks, Alaska, NI #726

The Indonesian 1954 50 Sen is apparently a mystery coin. Twice it has been deleted from listing in major world coin catalogs. Yet, as you can see, it does exist.



This brief article will not shed much light on the subject. Its purpose is to bring the coin to the attention of the numismatic fraternity.

According to Mr. Holland Wallace, formerly of Western Publishing Co., Inc. (Whitman Division), the coin was dropped in 1972 from Mr. Yeoman's works, *Modern World Coins* and *Current Coins of the World*, because "neither Mr. Yeoman nor myself is able to determine where the original listing of the date originated" (8/17/72). The coin was originally listed as Y5. As is now known, the coin is of type Y5a.

Within a month of the above correspondence, the coin was offered by Mr. Lauren Benson in his monthly fixed price list. Recent correspondence with Mr. Benson indicates that he purchased 8-10 1954 50 Sen coins, and these were included in a lot of 1955 and 1957 coins. After selling 2-4 of these coins, the rest were set aside, with hope of finding some information about their scarcity. He later stated "Apparently when they were listed in Krause-Mishler at the same price as the 1955-57 issues, we decided we were wrong and they must be common, so sold the rest of them." I managed to purchase the remaining 4 in stock when they were again offered for sale in the summer of 1978. The other two are also in private collections. All coins purchased from Mr. Benson grade weakly struck almost uncirculated.

In correspondence of 10/3/72 with the late Mr. E. L. Gaver, he states "I believe it was March that we advertised Indonesia Y5a, 1954." Of 20 Y5a purchased, "only 5 or 6 were 1954, VF condition."

Even though the numbers of coins differ, due possibly to varying memory, these could possibly be the same coins. Also, upon quick examination, the weakly struck centers on the coins could cause them to be grade VF. But, due to the close proximity of selling dates of Mr. Gaver and Mr. Benson, and the unlikely possibility that all coins of Mr. Gaver would be sold to one buyer, I feel safe to assume that the lots are not the same.

The only other specimen of the coin I have found is in a private collection. The owner states "I have found only one among thousands of Y5 and Y5a's". This coin could possibly be from one of the two above lots.

While the Third Edition of the Krause-Mishler *Standard Catalog of World Coins* listed the 1954 50 Sen, along with a mintage(!), the Fourth Edition dropped the listing. A letter from Mr. Fred Borgmann states that according to all information they had , and according to their leading Indonesian contributor , Y5a, 1954 did not exist. He also could not understand where they came up with the mintage figure. I seem to remember writing to him, telling him that I had one, but the letter must have been lost, as the coin is not in the Fifth Edition.

So there we have the "known" examples of the coin. We know of 13 to 17 examples, compared to thousands and thousands of the 1955 and 1957 coins.

But, who minted the 1954 50 Sen coin?

Many various mints have struck coins for Indonesia. In 1954, Imperial Chemical Industries (now I.M.I. Kynoch Ltd.) struck 11 million 50 Sen coins. Simple? Not quite: "To the best of our knowledge, the coins struck by the IMI Kynoch Mint in the mid-1950's were all dated 1955, but the actual minting occured in the years 1954 to 1956" (J.F. Wood, marketing manager, Feb. 19, 1973).

The 1954 coin, and the 1955 coin are remarkably different. The lettering on the 1954 coin is larger than on the 1955 coin. A "specimen" issue of the 1955 coin, in magnetic metal (Jess Peters Sale #96) indicates that maybe, just maybe, the Indonesian government didn't like the 1954 issue. Logical, that a "non-approved" engraving of the approved design would be a short run, and new dies would be prepared. But the 1954 issue closely resembles the 1957 issue (struck in Indonesia) , so this appears unlikely.

The 1957 issue, as stated above, was minted in Djakarta, by the Indonesian Government Mint. Did they make the 1954 50 Sen? From Dr. Ir. van den Brandhof, master of the Netherlands State Mint we learn that "The Indonesian Mint at Djakarta (Kemajoran) first went into operation about 1956 or 1957". If they struck the coin, they did so after 1954. From comparison, it appears that the 1954 coin was the model for the 1957 coins.

Besides this , about all we know is who did not mint the coin. My research indicates that the following mints did not strike the coin: Utrecht, IMI, British Royal Mint, Bern, Hamburg, Stuttgart, Karlsruhe and Vienna.

Where was the 1954 50 Sen coin minted, and in what quantity? If anyone knows, they are not telling!

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NEED APPLICATION BLANKS OR EXTRA COPIES OF *NI BULLETIN* FOR RECRUITING?

NI is always seeking new members who share our interests. If you need any recruiting materials, such as application blanks, extra copies of the *NI BULLETIN*, etc., drop a note to Membership Chairman at the regular Dallas address. We will also be glad to send a complimentary copy of any issue to names and addresses that you would care to furnish. Help NI grow which will result in more benefits for you in future years.

CONTENTS OF THE NI REFERENCE COLLECTION

(Only coins grading FINE or better are being listed in this continuing inventory of the NI REFERENCE COLLECTION. Members desiring to borrow coins from the collection for research purposes, lecture use, non-competitive displays, or any other reasons, may do so by paying postage and insurance both direction.)

(Coins in the collection which are UNCIRCULATED are underlined.)

COSTA RICA (Continued from last month): Y64.2 - 1958, 1967; Y64.4 - 1972, 1973; Y65 - 1951; Y65a - 1953, 1958, 1967; Y65b - 1969; Y65c - 1972; Y68 - 1954; Y68a.1 - 1961; Y68a.2 - 1965, 1970; Y68a.3 - 1972; Y69 - 1954; Y69a - 1961; Y70.1 - 1967; Y70.2 - 1972; Y71.1 - 1970; Y71.2 - 1972.

CUBA: Y3 - 1916; Y3a - 1943; Y3b - 1946, 1961; Y4 - 1915, 1916; Y5 - 1915, 1916, 1920; Y5b - 1946, 1960, 1961; Y6 - 1915, 1948, 1949; Y7 - 1920, 1948, 1949; Y8 - 1915; Y17 - 1952; Y18 - 1952; Y19 - 1952; Y20 - 1953; Y21 - 1953; Y24 - 1958; Y25 - 1962; Y26 - 1962; Y27 - 1963; Y28 - 1963.

CYPRUS: Y22a - 1943, 1944, 1945; Y23 - 1938; Y23a - 1942, 1945; Y27 - 1947; Y28 - 1938; Y29 - 1938; Y31 - 1949; Y32 - 1949; Y33 - 1949; Y34 - 1949; Y35 - 1955; Y36 - 1955, 1956; Y37 - 1955; Y38 - 1955; Y41 - 1963; Y42 - 1963, 1970, 1971, 1972, 1973, 1974; Y43 - 1963, 1968, 1977; Y44 - 1963.

CZECHOSLOVAKIA: Y1 - 1924; Y2 - 1923, 1938; Y3 - 1922, 1937; Y4 - 1921, 1926, 1937; Y5 - 1933; Y6 - 1921, 1922; Y7 - 1937; Y8 - 1926; Y10 - 1938; Y11 - 1928; Y12 - 1930; Y13 - 1933; Y33 - 1950; Y34 - 1952; Y37 - 1946; Y38 - 1950; Y48 - 1953, 1954, 1956; Y49 - 1954; Y50 - 1954; Y51 - 1953, 1954, 1956; Y52 - 1953; Y61 - 1960; Y62 - 1962, 1963; Y63 - 1963; Y64 - 1962, 1967; Y65 - 1962, 1967, 1969, 1971; Y67 - 1963, 1964, 1965, 1969, 1970, 1971; Y68 - 1964, 1969, 1970; Y72 - 1965, 1966, 1969; Y73 - 1966, 1968; Y73.1 - 1969; Y78 - 1968.

CZECHOSLOVAKIA - Bohemia-Moravia: YB29 - 1941, 1942; YB30 - 1941; YB31 - 1941; YB32 - 1942, 1943.

DANISH WEST INDIES: Y8 - 1905; Y9 - 1905.

DENMARK: Y1 - 1868; Y2 - 1867; Y8 - 1882, 1899; Y9 - 1881, 1899; Y10 - 1874; Y20 - 1907, 1912; Y21 - 1907, 1912; Y22 - 1907, 1908; Y23 - 1907; Y24 - 1907; Y28 - 1915; Y28a - 1918; Y29 - 1914, 1915, 1921; Y29a - 1918; Y30a - 1918; Y31 - 1920; Y33 - 1925; Y34 - 1925, 1940; Y35 - 1939; Y36 - 1915; Y46 - 1927, 1928, 1938, 1939; Y47 - 1927, 1928, 1931, 1937; Y48 - 1928, 1932, 1940; Y49 - 1924, 1925, 1926, 1929, 1931, 1934; Y49a - 1944; Y50 - 1929, 1934, 1939, 1946; Y50a - 1945; Y52 - 1941; Y52a - 1944; Y56 - 1955, 1956, 1960, 1961, 1962, 1963, 1964, 1965, 1967, 1968, 1969, 1970; Y57 - 1955, 1957, 1960, 1962, 1964, 1966, 1967, 1968, 1969; Y58 - 1952, 1957, 1959, 1961, 1964; Y59 - 1948, 1950, 1953, 1954, 1955, 1956, 1957; Y60 - 1949, 1953, 1954, 1955, 1957; Y62 - 1956; Y68 - 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971; Y69 - 1961, 1962, 1963, 1965, 1966, 1967, 1968, 1969, 1970, 1972; Y70 - 1961, 1962, 1965, 1966; Y71 - 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1971, 1972; Y72 - 1961; Y75 - 1968; Y76 - 1967, 1968, 1969, 1971, 1972; Y77 - 1972; Y78 - 1974, 1977; Y79 - 1973; Y80 - 1973, 1974; Y81 - 1976.

BOOK REVIEWS

PAPER MONEY OF THE 20th CENTURY, VOL. 3, LOCAL PAPER MONEY ISSUED DURING THE SPANISH CIVIL WAR, by Kenneth Graeber. 146pp, loose-leaf 7-ring binder, plastic covers. 8-1/4" x 11". Published by the International Bank Note Society. Available from IBNS or NI member John G. Humphris, P. O. Box 34, Sidney, Ohio 45365, or other paper money and book dealers. Humphris offers at $17.50 postpaid.

The International Bank Note Society has recently released this 3rd volume of the *Paper Money of the 20th Century* series. The author served in Spain himself during the civil war as an ambulance driver on the Spanish Republican side from June 1937 to December 1938, and this started his collection of these emergency notes which he has been adding to during the last 40 years. He lists the notes issued by 1,538 localities, most of which have two or three illustrations per page. The catalog has been printed in a limited edition of 500 copies.

This new catalog is the most authoritative ever published on the emergency paper money of the Spanish Civil War, nothing like it has ever been attempted before on these issues, only scattered references to a few issues such as in the *NI BULLETIN* last year (May 1978, pp149-150). To give an idea of the scope of this masterpiece, it lists no less than 691 cities, towns and villages which issued paper money in Catalan, plus 843 places which issued paper money in Spanish, and two military issues, totalling the 1,538 issuing authorities! The denominations issued by each place are listed, and some places issued notes more than once or by different authorities within each place. Under Barcelona, for example, it lists notes issued by 53 differen authorities. The author does not claim that this catalog is complete, because new notes are being found even now, and new finds are published at the end of the book.

All place names are listed alphabetically within the two separate sections on Catalan and Spanish notes, so the collector can easily find any notes which he has in this catalog.

All the notes in the catalog are rated by scarcity from "common" to "RRRR" in six grades, and prices are given for each degree of scarcity in five grades from VG to CU. Cardboard notes, and notes signed or numbered by hand bring considerably higher prices than the others.

The catalog begins with a map of Spain showing the provinces and the lines between the Nationalists and the Republicans in Spring 1937, and a brief history of the civil war and the reasons for the issues of the emergency paper money. The author notes that there were changes in several place names due to the anti-clerical sentiments of the Republicans, mostly caused by anarchists and communists. There were a few anarchist issues of paper money in different units than the official centimos and pesetas. The catalog ends with a listing of notes which have been recently forged, and notes which have recently been printed for places which did not originally have paper money. These appeared on the market from 1977, especially for collectors of these emergency notes. The original texts of several decrees authorizing the issue of emergency paper money are printed at the end of the catalog, which closes with a bibliography of other books on the Spanish Civil War and its paper money issues. A translations of words which frequently appear on the notes is provided, from Spanish and Catalan into English.

Reviewed by John G. Humphris

MONEDAS DE LA REPUBLICA DOMINICANA, by Isaac Rudman and Miguel Estrella. 8" x 5-1/2", stiff paper cover, 64pp, illus. Published by Sociedad Numismatica Dominicana. $2.50 US postpaid by airmail. Available from Isaac Rudman, P. O. Box 2189, Santo Domingo, Republica Dominicana.

This new catalog on the coinage of Dominican Republic is entirely in Spanish with prices in Dominican Republic pesos (theoretically at par with the US dollar, but in reality worth about 20% less). It is easy to follow for non-Spanish speaking people.

Independence for Dominican Republic was proclaimed on July 27, 1844 and the catalogue commences with the 1844 1/4 real, continuing through the 1979 issues.

The coins are subdivided by denomination and priced for 6 grades of preservation from Very Good through Proof. A photo of both sides of each type coin is given as well as its Yeoman number, diameter, weight, type of edge and metal. Mintage figures are given for each date. Prices are realistic and underline scarce dates and the scarcity of Uncirculated specimens for many early dates. Proof mintages are given where known.

Fifteen patterns are catalogued with photos of each type.

A descriptive listing of the many die varieties of the 1844 and 1848 1/4 real are listed.

A seven page section with photos of 24 tokens concludes this excellent catalogue.

Mr. Rudman is a keen numismatist who has specialized in the coins of his country for over a decade. Profits from the catalogue go to the Sociedad Numismatica Dominicana. Yearly dues are $12.00 and include the society's printed journal. This year each member will receive free of charge a 1979 1 Peso counterstamped to mark the society's 10th anniversay. Dues may be sent to Mr. Rudman.

Reviewed by Jerry Remick

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HAVE YOU MADE YOUR PLANS FOR N.I.C.E. YET?

NI dealers planning on having a bourse table at N.I.C.E. (November 9-11, 1979) should not delay getting in your application. Over half of the allotted tables have already been sold.

MEMBER NOTICE PAGE

Christa Persing, DDR-409 Halle-Neustadt, Block 233/6, German Democratic Republic: I am interested in trading for coins of the Low Countries prior to 1815 and coins of the Dutch Overseas Territories. Also in countermarks from all over the world.

LT Darrel J. Doll, HHC 1st BN 7th INF, APO NY 09162 or Lärchenstr. 33, 8751 Bessenbach 3, FRG (West Germany): Karl Goetz, Zeppelin and Hitler/Nazi Medals WANTED. Please write first. Will correspond with collectors of same.

Albert Hoch, 33355 Detroit Rd., Avon, Ohio 44011: Help wanted in the numbering sequence of Miura Gosen's books. Book One: Annamese Coins Minted by the Official Mints; Book Two: Annamese Coins Minted by Unauthorized Mints; and Annamese Coin Catalogue, Large Coins and Silver Coins Classified. There is also a fourth book, what is its name? Can a copy be bought or photo copied? Annamese copies of Chinese holed cash coins needed for my collection.

D. M. Etzel, P. O. Box 601, Sgt. Bluff, Iowa 51054: WANTED: World counterfeit coins (those made to pass in circulation), for reference collection. I'll send 20 different genuine world coihs for each counterfeit sent to me in Fine or better condition.

Serge Huard, C.P. 402, Pointe-aux-trembles, Québec, Canada Y1B 5K3: WANTED: Anguilla, 1974, $25 (H#26), "R. Webster Commemorative"; all Pretender Issues from France, Louis XVII, Napoleon II, Henry V, Napoleon IV; all "Pieforts" from France and former colonies; Hutt River Province, 1976 and 1977, $100 Proof gold coin and Proof Sets. Sealand Principality, all coins & sets. WANTED: coins and sets from countries that exist no more, from government-in-exile. Please make offers. Information on these issues also wanted. All letters answered.

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NEW ISSUES WITH ASSIGNED YEOMAN NUMBERS

(The catalog numbers assigned to new issue coin listings published here are supplied and copyrighted by Western Publishing Co., Inc., Whitman Coin Products, Racine, Wisc., U.S.A. No further use of these numbers in any other publication is authorized.)

* Collectors' Coins

GERMAN DEMOCRATIC REPUBLIC
* Y69 5 Mark 1979, Cupro-Nickel (29mm)
Centennial Birth of Albert Einstein

GERMANY, FEDERAL REPUBLIC
* Y147 5 DM 1979, .625 Silver (29mm)
150th Anniversary Archaeology Institute

YEMEN (San'a)
Y42 1 Fils 1978, Aluminum (15mm), Second F.A.O. Coinage
Y43 1 Rial 1978, Cupro-Nickel (28mm), Second F.A.O. Coinage